

## REMARKS

1. **Claim Objections.** The Examiner objected to Claim 1, stating that in "Claim 1, line 4, the claimed "recognizing a telephone number a contained ..." should be changed to "recognizing a telephone number contained ...", and required that appropriate correction be made

5 Applicant has therefore amended Claim 1, to correct the aforementioned informality.

10 Applicant has also amended the preamble of Claim 1 to more generally refer to the various method steps "performed on an electronic document", and has corrected other informalities throughout the claims, to provide proper antecedent basis for each of the method steps and structural elements. Applicant submits there is no new matter.

15 2-3. **35 U.S.C. § 103.** The Examiner has rejected Claims 1-23 under 35 U.S.C. § 103(a) as being unpatentable over Shachar et al. (U.S. Patent No. 5,764,736)(Shachar).

20 3a. The Examiner stated that, as per claims 1,4,7, and 10-11, "Shachar teaches a method for identifying telephone numbers within an electronic document. The method comprises the steps of:

25        parsing the electronic document (col. 9, lines 4-16); and  
              recognizing a telephone number which contains numbers and text symbols (col. 9, lines 4-16 and 52; box 412 in Fig. 4a)."

30        **Analysis of Shachar.** As seen in the Abstract of Shachar, techniques are disclosed "for switching from a data session to a voice session, and then back to the data session" wherein a primary "data connection is established between a user's terminal and a communications network, which provides the user terminal with a tag identifying a voice network address ... to which a voice connection can be established. The user initiates a voice connection (session) with the service provider by selecting a displayed service object associated with the service tag".

35        The data session in Shachar is therefore initially provided with a selectable "tag"

              which identifies a voice network address, to which a voice connection can be established.

However, Shachar does **not** teach the **identification** of telephone numbers within an electronic document. The telephone numbers are already include a "service tag", which are then selectable by a user.

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**Parsing of an Electronic Document.** Shachar generally refers to a standard browser program, which produces a HTML display at a user terminal, in response to the embedded information (e.g. such as existing text objects, graphic objects, and hyperlinks). As stated in Shachar, on col. 9, lines 4-16:

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"It is assumed, for purposes of this description, that the terminal 100 has a browser" program associated with it. "Browser" programs are the instrumentality by which a user "navigates" information stored on a data communication network such as Internet. **These browser programs recognize the formatting and link information stored with hyper-linked hypertext documents** (described hereinabove) and generate appropriately formatted displays from data and formatting information contained in the document. Further, browser programs are capable of retrieving and storing/displaying hyper-linked documents when a hyper-link is activated by a user (usually by selecting a hyper-link object on a display screen".

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Therefore, as Shachar clearly states, it is the "browser program" which "recognizes" the **"formatting and link information stored with hyper-linked hypertext documents"**. The browser program simply recognizes **previously defined** (i.e. "stored") formatting and link inofrmation, and uses this previously defined link information to "generate appropriately formatted displays from data and formatting information contained in the document".

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Such standard browser program functions, as described by Shachar, are also disclosed in the Application as filed, on page 2, lines 1-10, wherein:

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"A Web page is encoded in Hypertext Markup Language (HTML). An HTML document is a plain-text (ASCII) file that uses tags to denote the various elements in the document. An element may include an attribute, which is additional information that is included between tags.

HTML can be used to link text and/or images, such as icons, to another document or section of a document. The user activates a link by clicking on it, and the linked database is directly accessed. Links are used to access related information, or to contact a person or entity. However, information on a Web page must have the requisite HTML tags to be an active link."

Clearly, not all information contained within a web page includes an HTML tag. As disclosed in Shachar, on col. 9, lines 19-33, and as seen in Fig. 2, a disclosed electronic business card (200) typically contains several types of information, including textual information (210), graphical information (220), tags (230), controls (240) having hyper-link connections (242), and "contact" information (250) having defined action links (252).

15 However, as properly disclosed by Applicant, information which does not include an HTML tag is not readily usable to automatically perform HTML functions. As disclosed in the Application as filed, on page 2, lines 12-24":

20 "Web pages often contain additional information such as telephone numbers. These phone numbers appear as informational numbers, for example, for customer service, marketing materials, further information, or for advertising...."

25 "However, **these phone numbers are provided on the Web as text.** HTML cannot be used to dial a telephone number over the Internet. Rather, the user must first search the text to locate a phone number. This search may be by visual inspection or by using a search engine to find a particular reference and its associated phone number. To access a number, the user must manually dial the number, or manually input the number into an automatic dialing program."

30 As seen above, Shachar discloses contact information (250) (*i.e.* telephone numbers) **which already includes** action links (252), by which actions may automatically be taken. Shachar fails to disclose the parsing of non-tagged information, such as textual information (210), to recognize phone numbers 35 contained therein.

Neither the browser program, nor any other process disclosed by Shachar, parses text-based information within an electronic document. As well, there is no need to parse (*i.e.* analyze) the text-based information in Shachar, since the contact telephone numbers contained therein already contain selectable tags. While

5 Shachar is silent in regard to the handling of non-linked textual matter within the electronic business card, it is apparent that the standard browser program simply includes the stored non-linked textual matter during the generation of "appropriately formatted displays from data and formatting information contained in the document" (col. 9, lines 10-12).

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Applicant has therefore amended Claim 1, 15 and 21 to more particularly point out and distinctly claim that the "text-based information within the electronic document" is parsed.

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Applicant has also amended the dependent claims as necessary, to provide proper antecedent basis for "text-based information", and to more clearly distinguish the difference between the "text-based phone numbers", which are recognized, and the "selectable iconic telephone numbers", which are provided by the invention. Applicant submits there is no new matter.

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**Recognition of Text-Based Telephone Numbers.** The Examiner also stated that Shachar provides a step of "recognizing a telephone number which contains numbers and text symbols", citing col. 9, lines 4-16 and 52; and box (412) in Fig. 4a.

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Applicant disagrees. The telephone numbers disclosed in Shachar are already associated with selectable "tags" or "hyper-links". As Shachar discloses, in col. 9, lines 23-33:

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"The electronic business card includes textual information 210, (*e.g.*, a company name, an address, a contact person's name, a brief description of goods and services provided by a vendor, etc.), graphical information 220 such as a logo or animated sequence, a set of "tags" 230, such as "buttons" on the screen, which enable use of the electronic business card to actuate certain actions..., a set of hyper-linked controls 240 for which the hyper-link

connections 242 are defined, and "contact" information 250 for which a set of action links 252 are defined".

5 The phone tags, therefore, are previously defined "links", which are related to either a "communication network address" or to a "conventional phone number". The "textual information (210)" clearly does not include text-based telephone numbers, while the "contact information (250)" already includes the "action links (252)".

10 There is no recognition of text-based telephone numbers by the system disclosed by Shachar. Selectable tags, which are already associated with a telephone number, are selectable by a user. The disclosed "recognition" within Shachar is limited to the generation of a browser display, as discussed above, based upon defined formatting and link information.

15 Again, as seen in col. 9, lines 4-16:

20 These browser programs **recognize the formatting and link information stored with hyper-linked hypertext documents** (described hereinabove) **and generate appropriately formatted displays from data and formatting information contained in the document."**

25 Applicant therefore submits that the "browser program" simply "recognizes" previously defined "formatting and link information" that is "stored" with a "hyperlinked hypertext document", and then generates a "formatted display", based upon the previously defined "formatting and link information".

30 There is clearly no "recognition" of a text-based (*i.e.* previously untagged) telephone number that contains numbers and text symbols. The browser program simply generates a display screen, based upon the supplied information and pre-defined hyperlinks.

Further support is seen in Shachar, in col. 9, lines 47-52:

35 "Phone Tag(s): one or more phone numbers for voice communication with the vendor and/or contact person. Depending on the nature of the communication network, **a phone tag may identify a communication**

network address to which voice communication may be established, or a conventional telephone number."

Therefore, it is clear that the phone numbers in Shachar are already associated with a  
5 selectable phone tag, which is included within a "navigable screen", whereby the phone tag may then be "selected" by a user.

Neither the browser application, nor any part of the system disclosed by Shachar,  
interpret non-hyperlink information (e.g. such as text-based information) to recognize  
10 telephone numbers contained therein.

As well, the recognition of a text-based telephone number would be not obvious,  
based upon the teachings of Shachar. As disclosed in the Application as filed, on page 3, lines 20-23, and in page 6, lines 1-4:

15 "A parsing algorithm applied to the text in the HTML document pattern-  
recognizes telephone numbers having a standard format, such as United States numbers or international phone numbers."

20 Further support is seen in the Application, as filed, page 7, line 19 to page 8, line 15, wherein:

25 Telephone numbers can include text, such as hyphens or parentheses, or spaces interspersed with numbers. The patterns in the Picture Formats are therefore defined by those text characters that can be before and in between numbers. Because some text characters void the pattern, the algorithm should take this into account (230). Thus, the algorithm can distinguish, for example, among parentheses surrounding an area code, parentheses surrounding a sentence, and a serial number containing both numbers and  
30 text characters.

The patterns in the Picture Formats are also defined by the length of the number string. For example, U.S. area codes are usually three digits, and prefixes are usually three digits, followed by four final digits.

The following is an example of an algorithm that supports U.S. phone numbers. The algorithm looks for the following patterns:

'xxx\*xxxx';

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'x\*xxx\*xxxx';

'xxx\*\*xxx\*xxxx'; and

10 'x\*\*xxx\*\*xxx\*xxxx';

where x represents a numeric digit, \* represents one character, and \*\* represents either one or two characters, all of which can only be equal to "-", ")  
15 .", ".", or ". ". There is a first character case that is omitted which is a "+" or a "(".

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Shachar fails to recognize the problem of recognizing a text-based telephone number, which, as disclosed by the Applicant, may include text, such as hyphens or parentheses, or spaces interspersed with numbers, may include one of many formats, such as area codes, domestic or international formats. Furthermore, Shachar  
20 lacks any suggestion that the invention be modified to recognize a telephone number.

**Conversion of a Text-Based Telephone Number to an Iconic Representation.** The Examiner conceded that "Shachar does not explicitly teach  
25 converting a telephone number to an iconic representation". However, the Examiner stated that, "since Shachar teaches associating a telephone number with an icon (col. 5, lines 43-52), it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert a telephone number to an icon because  
30 a HTML program could be designed to establish a link between a service object with a data provided".

Applicant disagrees that it would have been obvious to convert a text-based telephone number to an iconic representation. As discussed above, Shachar discloses, in col. 5, line 43-52:

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5        "Tags defined within the electronic business card structure **define phone numbers**, fax numbers, E-mail network addresses, etc., by which a vendor can be contacted. The electronic business card can be displayed on a display screen of the communication terminal device. **Each tag is associated with a display "object"** on the display screen, e.g. a "button" or a highlighted text or graphical object. **When the object is selected** by a user using an input device of the communication terminal device, **the action defined by the tag associated with the selected object is performed**".

10      Therefore, in Shachar, telephone numbers are **already** associated with selectable tags, which are associated with a display "object" on the display screen, which are then "selected by a user". There is absolutely no reason in Shachar to "convert a text-based telephone number to an iconic representation", since telephone  
15     numbers within the "electronic business card structure" are **already** associated with a selectable tag.

20      While the Examiner states that "a HTML program could be designed to establish a link between a service object with a data provided", Applicant submits that, while links may be established within an HTML program, there is no suggestion, express or implied, that the HTML program described by Shachar be modified to establish a link to text-based information (e.g. a text-based phone number).

25      As disclosed by Shachar, in Col. 12, lines 61-65, and illustrated in Fig. 4a:

30      "These flow charts (Figs. 4a, 4b, 4c) assume the use of a GUI guided by a hypertext markup language whereby a series of markup elements describe actions to be taken (including communications sessions addresses, etc.) upon selection of displayed screen objects".

35      Further, as disclosed by Shachar, in Col. 13, lines 4-41:

35      "Fig. 4a is a flowchart showing actions to be taken by a data communications terminal ... in preparation for suspension of a first communications session in preference of a second communications session" ... "The markup element indicates a graphic element to be displayed and/or actions to be taken upon

a user selection" ... "In a next step 406, it is determined whether the markup element identified in the previous step 404 includes an alternative network address (*i.e.* whether it is necessary to establish a second communications session with a different destination ... if an alternative network address is not indicated, then a next step 408 simply displays any graphical object(s) associated with the markup element, and returns to the first step" ... "A next step 412 retrieves and stores information related to the cost of communications with the alternative network address" ... "A next step 416 retrieves display information associated with the alternative network address indicated by the markup element, such as image, text, video and/or audio"

Therefore, for information (*e.g.* text-based information) which does not already have an associated tag linked to an "alternative network address", the method "simply displays" the graphical object. Shachar clearly teaches away from the analysis, 15 recognition and iconification of information is not previously defined to include a selectable tag to initiate a alternative communication session.

Shachar doesn't create icons, but merely provides navigation between communication sessions based upon previously defined "selectable" objects. As 20 clearly disclosed in the present invention, Applicants provide selectability from objects (*i.e.* recognized text-based phone numbers) which are **not** previously defined as being selectable objects (*e.g.* by recognizing text-based phone numbers within text-based information , and making the recognized text-based phone numbers selectable (*e.g.* iconizing), none of which is taught by Shachar.

25 While Shachar discloses basic transfer between a "data communication session" and a "voice communication session", Shachar is silent in regard to either the recognition of a text-based phone number within an electronic document (*e.g.* a Web page), or the subsequent iconification of a recognized text-based phone number to produce a 30 "service object icon".

Applicant therefore submits that Claim 1, as amended, overcomes the Examiner's rejection of Claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Shachar. As Claims 4, 7, and 10-11 inherently contain the limitations of the claims they 35 depend from, Applicant respectfully submits that they are patentable as well.

3b. As per claim 2 and 13, the Examiner stated that "Shachar teaches transparently disconnecting from the session upon selection of the iconified telephone number and calling the telephone number". Applicant respectfully submits that, as Claims 2 and 13 depend from amended Claim 1, and inherently contain the limitations of the claims they depend from, Applicant respectfully submits that they are patentable as well.

3c. As per Claim 3, the Examiner stated that Shachar teaches "reconnecting a suspended session when the telephone session is terminated". Applicant respectfully submits that, as Claim 3 depends from amended Claim 1, and inherently contain the limitations of the claims it depends from, Applicant respectfully submits that Claim 3 is patentable as well.

3d. As per Claims 5 and 6, the Examiner stated that "Shachar teaches an Internet-Capable telephone device (col. 6, lines 24-27). Further, the claimed transmitting and displaying the electronic document to a complementary device would have been well known to a person of ordinary skill in the art at the time the invention was made".

Applicant respectfully submits that, as Claims 5 and 6 depend from amended Claim 1, and inherently contain the limitations of the claims they depend from, Applicant respectfully submits that they are patentable as well.

3e. As per Claims 8, 9 and 14, the Examiner stated that "Official Notice is taken that the claimed limitations are old and well known in the art (See In Re Malcolm 1942 C.C.589 O.G.440).

Applicant respectfully submits that, as Claims 8, 9 and 14 inherently contain the limitations of the claims they depend from, they are patentable as well.

3f. As per claim 12, The Examiner conceded that "Shachar does not explicitly teach parsing algorithm method. However, the Examiner stated that "Shachar teaches recognizing pattern by parsing an electronic document. It would have been obvious to a person of ordinary skill in the art at the time the invention was made that Shachar must include parsing algorithm must performs similar function as claimed".

The Applicant submits that Claim 12, which inherently contains the limitations of the Claim 4, is seen to be patentable as well.

In addition, as disclosed in the Application as filed, the parsing function is used to  
5 "pattern recognize a telephone number contained therein" (Claim 4 of the Application as filed), wherein, as cited in Claim 12, as amended above, the parsing algorithm comprises the steps of:

"developing a set of Picture Formats for the patterns of phone numbers;  
10 reading an accessed electronic document;  
    checking every character in said text-based information within said electronic document to determine if said character is a numeric character;  
    applying a pattern-recognition algorithm to sequentially check a character following an identified numeric character to determine if said following character is any  
15 of numeric or an interspersed text or punctuation character;  
    caching a series of consecutive numeric characters; and  
    comparing said caches series to said Picture Formats;  
wherein a matching format indicates a text-based telephone number."

20 As discussed above, the browser program disclosed in Shachar merely formats a browser display screen, based on previously defined attributes. Shachar does not disclose the detailed analysis of the previously defined attributes to recognize text-based phone numbers and iconify them.

25 Shachar failed to recognize the mere existence of text-based telephone numbers, commonly having different formats. It would therefore be unreasonable to assume that "Shachar must include parsing algorithm which performs similar function as claimed". The multiplicity of steps involved (e.g. developing a set of Picture Formats, caching series of consecutive numbers, comparing cached series to Picture  
30 Formats, matching formats) for the patterns of phone numbers in the Applicant's parsing algorithm for "pattern recognizing a telephone number", as cited in Claim 12 in the Application as filed, would require undue experimentation to develop the cited method, which is neither taught nor suggested in Shachar, and the shear multiplicity of steps is too involved to be considered obvious.

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**3g.** As per Claim 15, the Examiner referred to the discussion of Claims 1-3 above.

Applicant has similarly amended Claim 15, to more particularly point out and distinctly claim that the method applies a "parsing algorithm to text-based information within said Web page to pattern-recognize a text-based telephone number", and  
5 that coding is added to the representation of the Web page to produce a selectable telephone number icon associated with the recognized text-based telephone number".

As discussed above, Shachar fails to "apply a parsing algorithm to the text-based information of a Web page to pattern-recognize a text-based telephone number contained therein", nor does Shachar add "coding to produce a selectable telephone number icon associated with the recognized text-based telephone number". Therefore, Applicant submits that Claim 15, as amended, overcomes the Examiner's rejection of Claim 15 under 35 U.S.C. § 103(a) as being unpatentable  
15 over Shachar.

- 3h. As per Claims 16-20, the Examiner referred to the discussion of Claims 12, 9, 10-11 and 14 above.
- 20 Applicant has amended Claim 16 to properly depend from Claim 15. As Claims 16-20 depend from amended Claim 15, and inherently contain the limitations of the claims they depend from, Applicant respectfully submits that they are patentable as well.
- 25 3i. As per Claims 21-22, the Examiner referred to the discussion of Claim 15 above. Applicant has similarly amended Claim 21, to more particularly point out and distinctly claim that the system includes a module for parsing the HTML code of a Web page accessed during an Internet session, wherein the Web page includes text-based information; and a parsing algorithm used by the module to pattern-  
30 recognize the text-based telephone number contained in the text-based information of the Web page.

As discussed above, Shachar fails to include a "parsing algorithm...to pattern-recognize the text-based telephone number contained in the text-based information  
35 of the Web page".

Therefore, Applicant submits that Claim 21, as amended, overcomes the Examiner's rejection of Claim 21 under 35 U.S.C. § 103(a) as being unpatentable over Shachar.

5 As Claim 22 depends from amended Claim 21, and inherently contains the limitations of Claim 21, Applicant respectfully submits that Claim 22 is patentable as well.

10 3j. As per Claim 23, the Examiner referred to the discussion in Claims 1-3 above, and stated that the "claimed access appliance is the extent of the claimed method above".

Applicant has canceled Claim 23.

15 The Applicant therefore respectfully submits that Claims 1-22, as amended, overcome the rejections under 35 U.S.C. § 103 set forth in this Office Action. Applicant submits that there is no new matter.

## CONCLUSION

20 Based on the foregoing, the Applicant considers the invention to be in condition for allowance. The Applicant earnestly solicits the Examiner's withdrawal of the rejections set forth in the above referenced Office Action, such that a Notice of Allowance is forwarded to the Applicant, and the present application is therefore  
25 allowed to issue as a United States patent.

Respectfully Submitted,



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